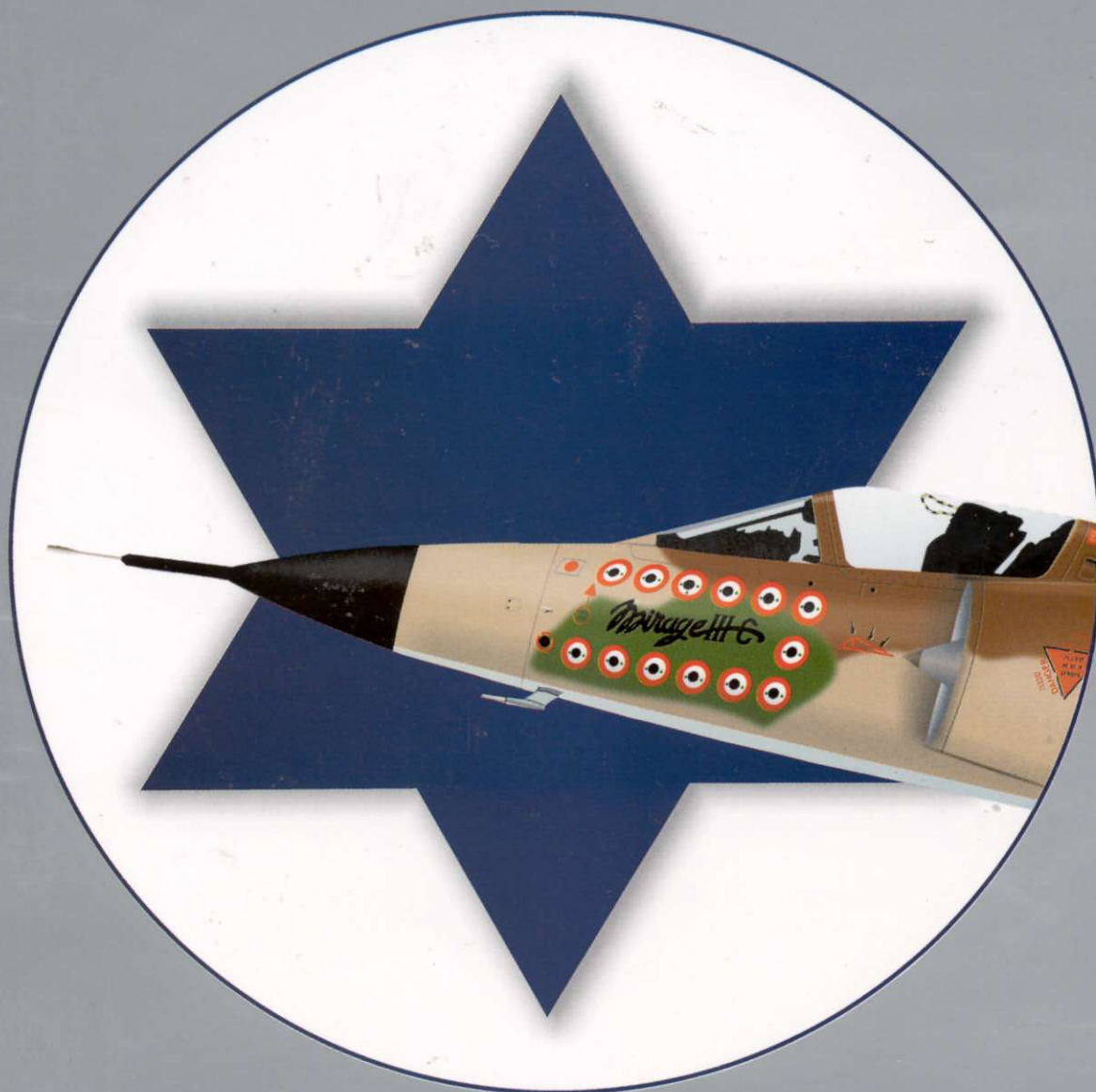


From Mirage to Kfir part 1

The

Mirage III C



Shahak



INTRODUCTION

It is very difficult to cover in a single book the detailed history of the *Mirage*, *Nesher* and *Kfir* in the IAF; a better approach would be an encyclopedia. However, this book and the next two to follow are a fair trial to present the most important facts about these fighters and the legendary pilots who flew them.

Many chapters of this history shaped the air fighting doctrine are still being taught in Air Force academies of many countries, including the famous *Top Gun* of the U.S. Navy.

Marcel Dassault named it "*Mirage*" because he wanted the aircraft to be like a "*Fata Morgana*": you can see it, but you can not reach it. So it was in it's time, at least when flown by IAF pilots.

The *Kfir* (Lion Cub, in Hebrew) was a natural evolution of the *Mirage*. Following it's enormous success during the Six-Day War, the IAF ordered and paid for 50 *Mirage* M5Js, but never received them, because of President *De Gaulle*'s arms embargo on Israel. The time was fit and the way was paved then to begin producing Israel's own fighter aircraft. And so started the production of the *Nesher* that lead later to the *Kfir*.

To my humble opinion, as an aviation fan and researcher, the *Mirage* should be considered as "The aircraft of the century": if not for it's aerodynamics and performances - a big step forward in it's time - then certainly for the bright pages of military aviation history it wrote.



Post stamp with
Mirage IIICJ images
flies over Mazada.
(produced for the 1967 Israeli independence day).



New year greeting card with Mirage IIICJs and Gen. Moti Hod
(produced after the victory of the Six Days War).



MIRAGE IIICJ IN THE SERVICE WITH I.A.F.

On Saturday, April 7, 1962, the IAF started its Mach 2 era when the first two *Mirage IIICJs* ("J" stands for Juif, which means Jewish in French) landed in Hatzor AFB. They were flown by Maj. Danny Shapira, then the Chief Test Pilot of the IAF, and Maj. Le Nun of the French Air Force. The next day, in the presence of Israel's national leaders and other VIPs, Maj. Shapira demonstrated how this aircraft should be flown, this being the maiden flight of the *Mirage IIICJ* in the skies of Israel. This was also the beginning of a 24 aircraft contract, which ended with the procurement of a total of 76 aircraft, as detailed below:

70 *Mirage IIICJ* single-seat fighters, delivered between April 1962 and July 1964;

2 *Mirage IIIRJ* photo-reconnaissance aircraft;

4 *Mirage IIIBJ* two-seat combat trainers, three of them received in 1966 and the fourth in 1968.

The fighters were allocated numbers 01 - 85 (not obligingly in sequell!); the two seaters were numbered 88 and 89, and the photo-reconnaissance aircraft 98 and 99 (a third digit was later added in front of the original number). The type was given the Hebrew name *Shahak*, meaning "Skyblazer".

After the Six-Day War, the aircraft were painted in camouflage. In the second half of the seventies, the IAF put some order in the *Mirage* fleet numbering system - the first digit of the single-seaters was changed to 1, the two-seaters were

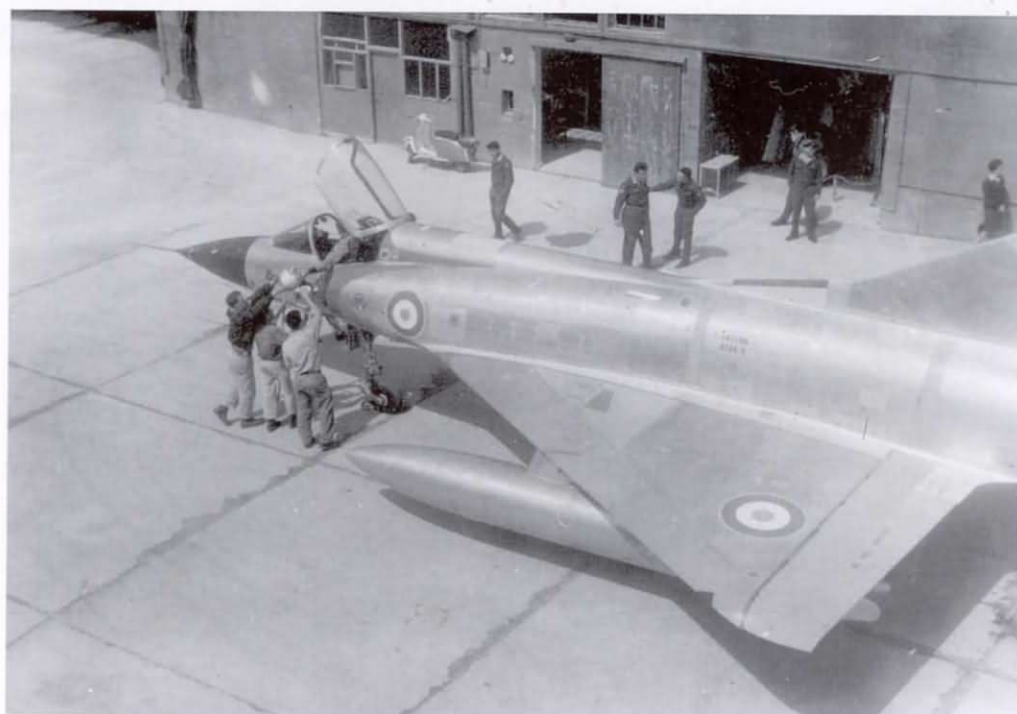
The Israeli *Mirages* did not carry *JATO* rocket engines, and were all armed with two *Defa* 30mm cannons.

During the first period of operation in IAF, the *Mirage* suffered from various "infancy illnesses". The *Snecma Atar 9B* engine proved to be problematic, causing four aircraft losses. The failure was located by IAF in 1963 (see "Dates and Events", November 11, 1963). Consequently, the *Atar 9B* was replaced by the improved 9C model.

Another problem was the adjustment (zero-in) of the cannons. It was an inadmissible failure, because the bullet dispersion made them miss the target! Pilot Maj. Efraim Ashkenazi, together with three weapons technicians, traced down the failure of the CSF-95 firing sight and corrected it. They received the prestigious "Israel's Defense Prize" for 1968.

The *Cyrano LBIS* radar proved to be of very low reliability, and most of the times it was inactive. After the Six-Day War it was phased out, together with the *Matra R530* radar-guided air-to-air missile (IAF code-named "Yahalom", diamond in Hebrew). The aircraft were equipped with the Israeli-made *Shafir 1*, and later *Shafir 2* infrared missiles, which proved to be quite successful.

The many other improvements introduced in Israel increased the performances and the reliability of the *Mirage*, enabling the IAF to make good use of it for twenty years.



One of the two *Mirage IIIRJs* as arrived to IAF Tel-Nof AFB, still with French markings. In the cockpit Ran Ronen (Peker). 10, March 1964



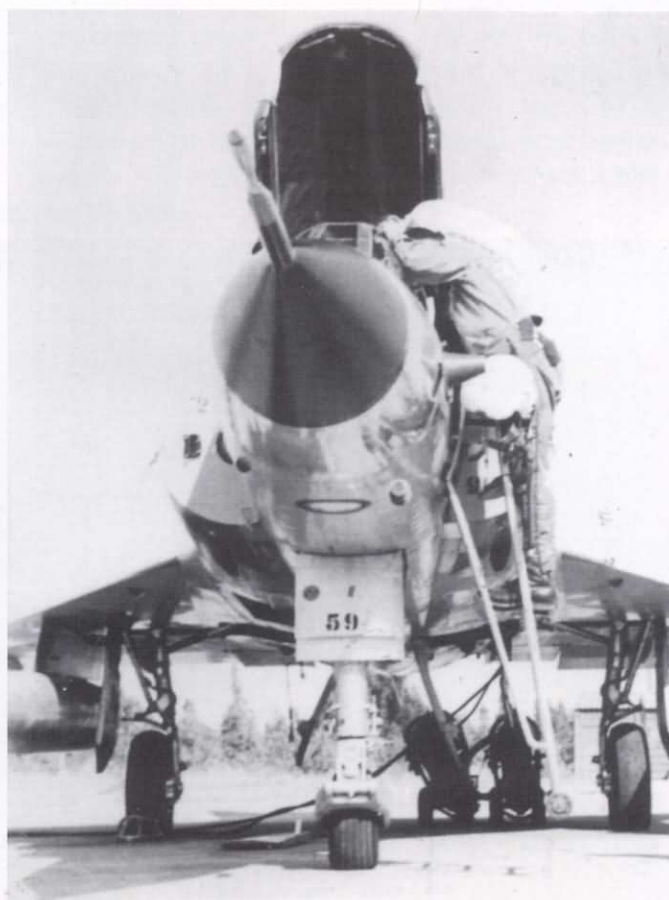
THE FIRST FIGHTER SQUADRON

Probably the most famous fighter Squadron of the IAF, 101 squadron started to operate on May 29, 1948 although the official order for its foundation was issued a few days later, on June 8, 1948. It started in Ekron (Tel-Nof) AFB. with Avia S-199 aircraft, and on July 5, 1948 was moved to the airstrip in Herzelia. In November, of the same year, it was moved again, this time to the Hatzor AFB. Spitfires and Mustangs gradually took over, until the last S-199s were withdrawn from service in May 1949. The squadron flew P-51 Mustangs until November 1955. The Mustangs were assigned to the "Flying Wing" squadron and the Spitfire squadron was "silenced". In February 1956 it became the first IAF squadron to operate the newly acquired Mystere IV A jet fighters from France, based at Tel-Nof AFB. In October '61 the Mysteres were transferred to the "Flying Wing" squadron. On April 7, 1962 101 squadron

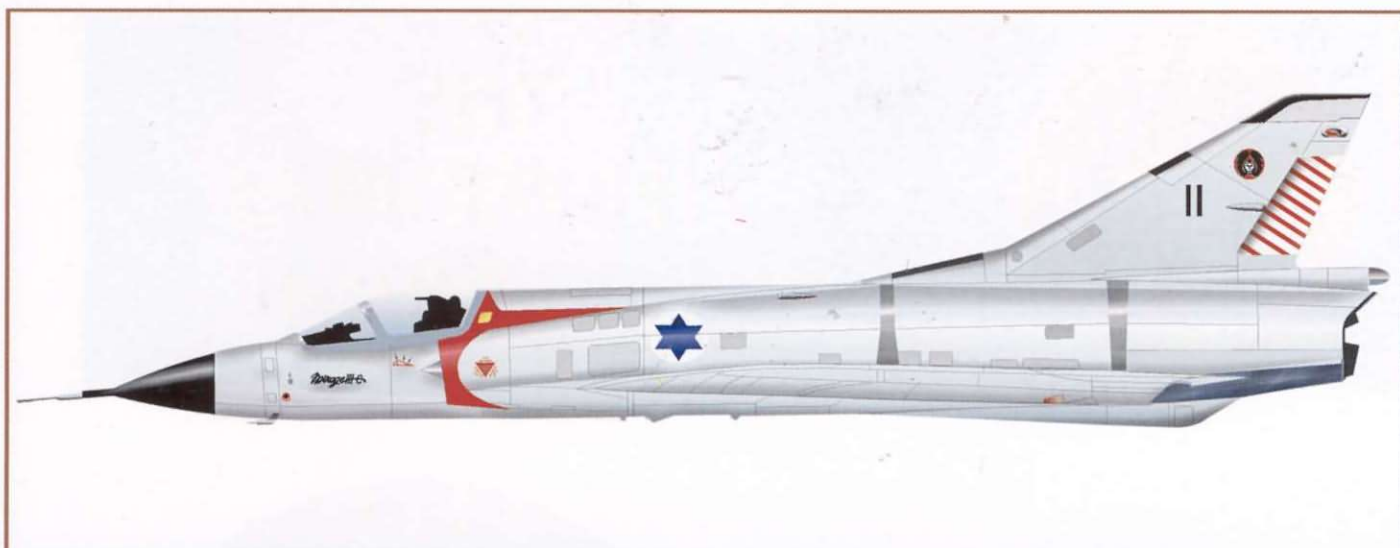
received its first two Mirage IIICJ (Shahak) fighters, Maj. Jo Alon was nominated squadron CO. From May '71 the squadron started to receive Nesher ("Eagle" in Hebrew) fighters, which were operated alongside the Shahaks. In April 14, 1975 the squadron started to receive the new Kfirs, straight from the assembly line of IAI. The Shahaks were transferred to the First Jet squadron, with the exception of the two photo-reconnaissance aircraft nos. 98 and 99.

In 1976 the squadron started to receive the upgraded Kfir C-2 version, and flew them until March 1987.

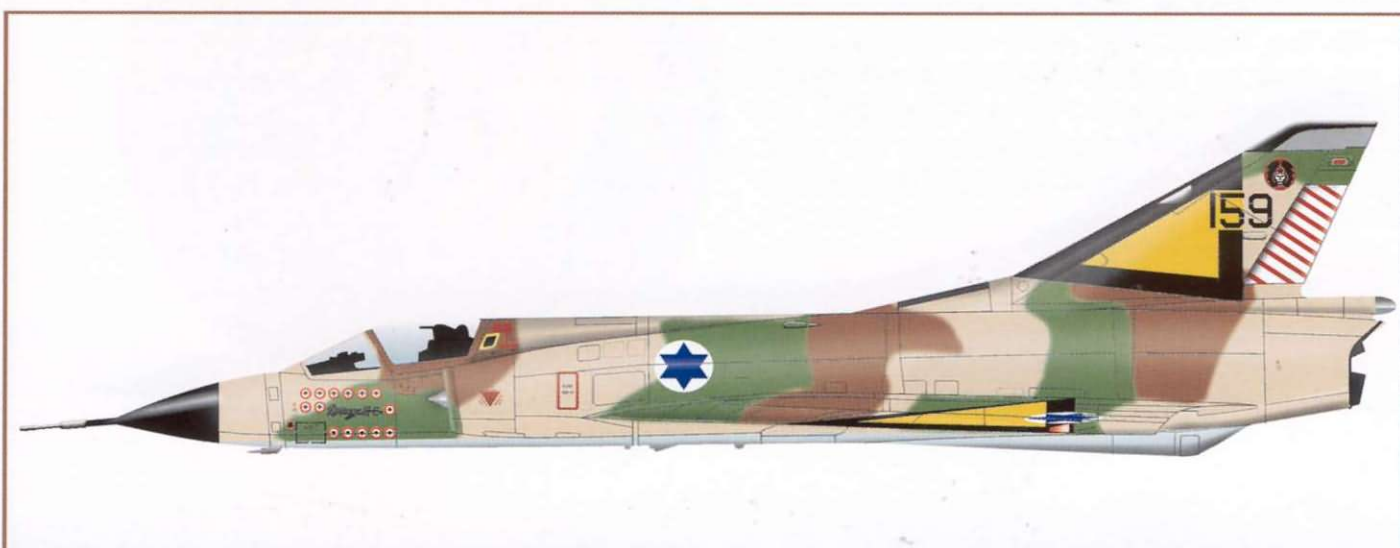
In December 1987 the first F-16D BARAK ("Lightning" in Hebrew) landed in the fields of 101.



Mirage N° 59 checked by its ground crewman.



Mirage IIICJ N° 11 from the First Fighter squadron early 60s'.



Mirage IIICJ N° 159 carried 13 kill marks from the First Fighter squadron mid 70s'.



Mirage IIICJ N° 159 exhibit at the IAF Museum in Hatzerim AFB.



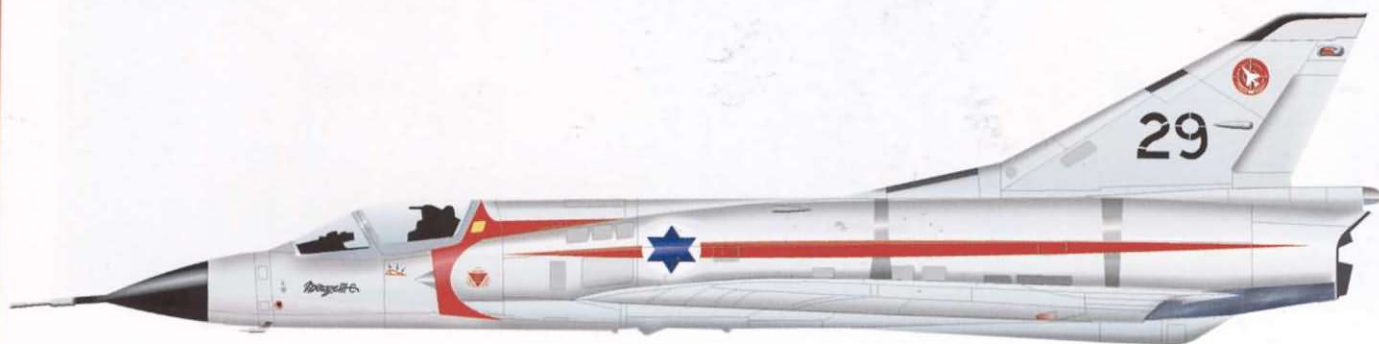


THE FIRST JET SQUADRON

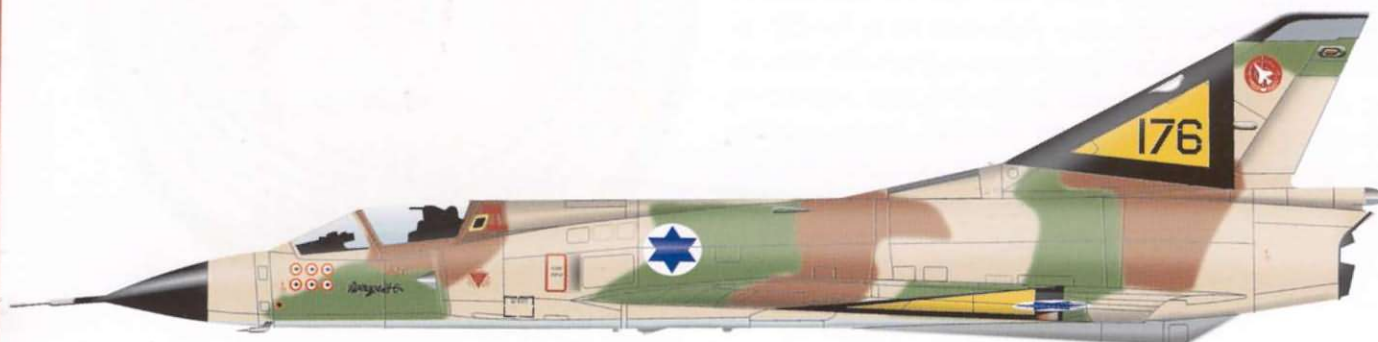
Commissioned in June 1953 to operate the *Meteor* jet fighters at *Ramat David AFB*. The first four *Mirages* were "adopted" on July 7, 1962, with *Maj. Shmuel Sheffer (Shtopper)* as squadron CO. This squadron operated the *Shahak* for 17 years - the longest period for any squadron in the IAF. In October 1979 the *Shahaks* were transferred to the Negev squadron, and the First Jet was decommissioned until July 1980, when it renewed its activity with *F-16 A/B Netz* ("Hawk" in Hebrew).



Mirage IIICJ N° 130 from the First Jet squadron just after take-off (mid. 70s').



Mirage IIICJ N° 29 from the First Jet squadron 1963



Mirage IIICJ N° 176 from the First Jet squadron mid. 70's



Mirage IIICJ N° 144 from the First Jet squadron in air-superiority camouflage 1980-82





THE BAT SQUADRON

Started its activity in September 1956 at *Ramat David AFB*, flying *Meteor N.F.13* night fighters. Moved to *Tel-nof AFB* in December 1957. In April 1958 adopted the first four *Vautour II*Ns. Temporarily inactivated in July 1963, when the *Vautours* were transferred to Knights of the North squadron in *Ramat David AFB*.

Re-activated in March 1964 with the first two *Mirage IIIR*Js (nos. 98 and 99). Maj. *Rafi Har-Lev* is the CO. of the third *Mirage* squadron. Flew the *Shahaks* for only six years, and in October 1970 the few remaining *Mirages* were dispersed to the two other existing squadrons (101 and First Jet). Concomitantly, the Bat Squadron integrated the modern *F-4E Phantom* (see book No. 1 in this IAF Aircraft Series).



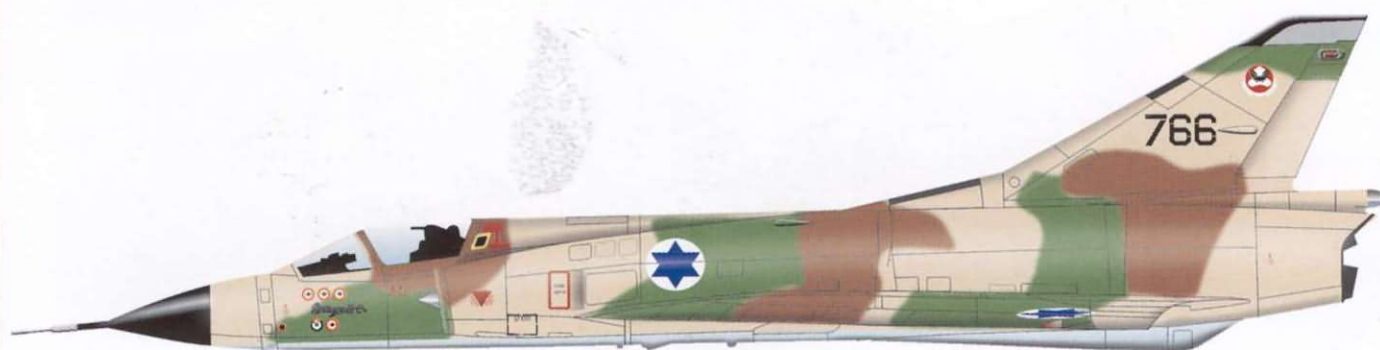
Mirage IIICJ N° 783 from the Bat squadron during take-off (mid. 60's).



Mirage IIICJ N° 783 from the Bat squadron (mid. 60's).



Mirage IIIBJ N° 88 from the Bat squadron (mid. 60's).



Mirage IIICJ N° 766 from the Bat squadron (mid. 70's).



THE NEGEV SQUADRON

Began operation at the end of November 1976 with *Nesher* aircraft at *Eitam AFB*, with *Maj. Uri Even-Nir* as the first squadron commander. The *Neshers* were operated until 1979, when they were phased out of IAF service and sold to Argentina. The squadron then started to "collect" all the remaining *Shahaks*, with the exception of the photo-reconnaissance aircraft Nos. 98 and 99, which continued to serve in 101 squadron. The last *Shahaks* were finally phased out of service in June 1982, and were also sold to Argentina. The squadron was then temporarily shut down.

When Israel returned the *Sinai Peninsula* to Egypt, as convened in the peace agreement between the two countries, a new base was built near *Mitzpe Ramon* in the *Negev*, known as *Ramon AFB*. The Negev squadron started there its new career with *F-16A/B Netz*.

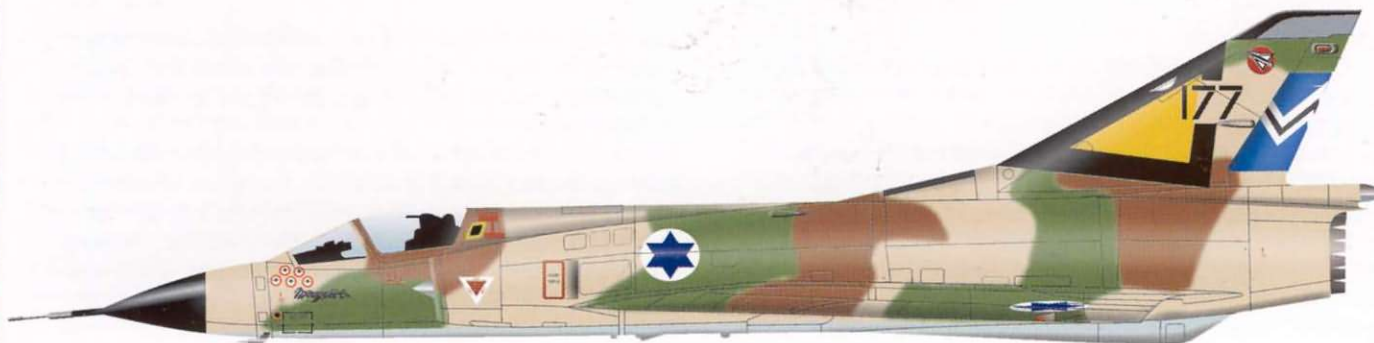


▲ Mirage IIICJ cockpit.

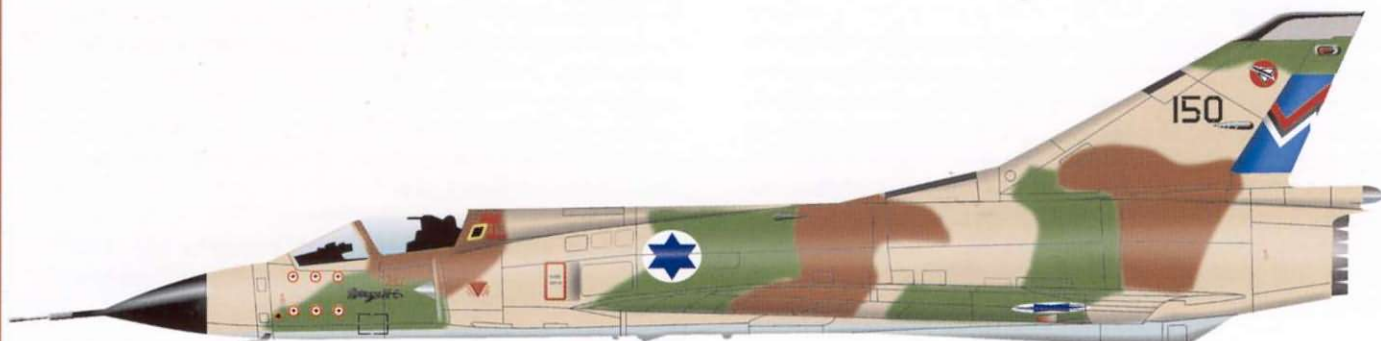


Mirage IIIBJ N° 286 from the Negev squadron inside its protective shelter end 70's





Mirage IIICJ N° 177 from the Negev squadron mid. 70's



Mirage IIICJ N° 150 from the Negev squadron end 70's



Mirage IIICJ N° 103 from the Negev squadron in air-superiority camouflage -end 70's



NOTABLE DATES AND EVENTS

June 23, 1959

Maj. Danny Shapira performs the first test-flight of the *Mirage IIIC* in France.

June 28, 1959

Maj. Danny Shapira performs the first over-Mach 2 flight with a *Mirage IIIC*.

August 3 - September 18, 1961

First *Mirage IIIC* check-out course for six IAF pilots at Mont de Marsan AB of *L'armee de l'air*. The IAF pilots were: Maj. Joseph (JO) Alon, Cpt. Amos Lapidot, Cpt. Ezra Aharon (from 101 squadron.); Maj. Shmuel Sheffer (Shtopper), Cpt. David Ivry, and Cpt. Dror Avneri (from The First Jet squadron).

May 26, 1963

First *Mirage* photo-reconnaissance mission over Egypt (with aircraft no. 53). It carried a modified nose with a *Ziess RMK 15/23* camera (code-named "*Tarmil*" - Bag in Hebrew). This special nose was interchangeable with any original *Mirage IIIC* nose.

July 19, 1963

First *Mirage* interception dash. Several USAF aircraft - among them a *B-57* - penetrated the Israeli airspace; 101 squadron *Mirages* forced them to land at Lod Airport.

August 22, 1963

First *Mirage IIICJ* dogfight. Two *Mirages* from the First Jet Squadron, piloted by Cpt. Ezra Dotan (Baban) and Cpt. Meir Livne, were sent to meet two formations of four *MiG-17s*, observed to fly towards *Ein-Gev*, an agricultural kibbutz on the east shore of the Lake of Galilee (Kinneret). Flight control directed them with precision, and the *Mirages*, flying very low, reached the Syrians from behind. Baban hit one of the *MiGs* and remained behind it. Livne hit another one, and both had to return to base. The two *MiGs* were damaged, but not downed.

October 27, 1963

101 squadron officially commissioned with photo-reconnaissance duties.

November 11, 1963

Ran Ronen (Peker) climbs the ladder into the cockpit of *Mirage 53* and escorted by Amos Amir, takes off on a photo-reconnaissance mission over the northern shore of Sinai, from *El-Arish* to *Kantara*, *Port Said*, the *Nile delta* and up to the town of *Damiette*. It was a low altitude flight with an air speed of 500 knots. The mission was carried out with no Egyptian interference, and all ground-to-air missile positions were photographed. Just before landing in *Hatzor AFB*, Ronen feels a hard blow, an engine loss of power and the instruments in the cockpit show a critical engine failure and engine fire. Knowing, of course, all the risks, Ronen tries to ignite the engine and when he decides there is no chance, sets the *Mirage* on a belly-landing position towards a large empty field, and ejects himself at a very low altitude. During the very few seconds of descent, he is astonished to observe that the *Mirage* executed a perfect belly landing, not far away from his own touchdown spot. Probably in every Air Force there is an order or a procedure instructing all air personnel to keep maximum distance between a fallen aircraft and themselves, when descending with a parachute. Against all natural instincts, Ronen got rid of his parachute, climbed the *Mirage*, turned off all electrical switches, took out the invaluable information on camera and left the place. It was an unheard-of act of bravery; moreover, after the ground crews removed the aircraft from the field (this operation following the safety procedure to the letter!) - the engine appeared to be undamaged. In short, the reason for all mid-air engine-cuts

was discovered: the gasket of the fuel-injectors was unable to stand temperature changes in this section of the engine; collapsing, a flow of fuel invaded the engine, provoking fire and even explosion.

The conclusions of this combination of personal heroism, and technical capability of the IAF: After two years of intensive work, "53" regained its combat air worthiness and continued its activity until it was lost during the War of Attrition. *Snecma* paid damages to the IAF and to *L'armee de l'air*. It also upgraded the *ATAR 9B* to become *9C* with higher performances and reliability. *Dassault* and *Snecma* got rid of a mysterious headache. Presumably, some lives were saved!!!

December 1963

Maj. Arlozor Lev (Zorik) is given the command of the 101 Squadron.

March 10, 1964

The two original *Mirage IIIRJs* (98 and 99) are incorporated into the Bat squadron. They were equipped with the American *ICON HR-231* camera, code-named "*Tashbetz*", (Crosswords, in Hebrew), and were assigned for missions at altitudes between 12,000 to 50,000 feet.

July 8, 1964

The first operational mission of the two *Tashbetz* aircraft over the Golan Heights, piloted by Cpt. Arie Ben-Or and Cpt. Shmuel Hetz.

July 19, 1964

Deepest penetration mission - yet - in Egypt by *Tashbetz* aircraft, bringing back detailed information about the large cities of *Alexandria* and *Cairo*.

November 13, 1964

First *Mirage* ground assault on Syrian artillery on the Golan Heights. It proves excellent results as an air-to-ground aircraft also.

November 14, 1964

Another page in the history of military aviation was written: the first encounter between *MiG-21* and *Mirage IIICJ*, and the first use by the IAF of air-to-air missiles. Cpt. Amos Amir and Lt. Yochai Richter of 101 squadron were on a patrolling mission along the northern border, when they were made aware that several *MiG-21s* flew in the direction of their area. The IAF pilots positioned themselves behind the *MiGs* and started firing. Amir tried to lock his "*Diamond*" missile, but it did not cooperate with its radar and went its own way. Cpt. Amir decided to fire a *Shafir 1*, but the missile chose to fly to the ground. The only option left to Cpt. Amir was to use his cannons, and so he did from a distance of 400 meters, inflicting several holes into the *MiG*, which was lucky enough to land safely in its home base.

December 21, 1964

First 101 squadron *Mirage* encounter with Jordanian *Hunters*. No air fight.

March 3, 1965

First Bat Squadron *Mirage* encounter with Egyptian *MiG-17s*. Radar missile guiding failures, and the deficient *CSF-95* firing-sight enabled the Egyptians to retire unscratched.

March 9, 1965

Against serious technical odds, the *Fairchild KA-52* camera was installed on both *Mirage IIIRJs*, replacing the French model. "*Moshel*" (Governor, in Hebrew) enabled "98" and "99" to photograph at a lower altitude than the *SA-2* missiles operated, so they were officially declared fully operational.

June 27, 1965

First operational PR sortie of the "*Moshel*" equipped *Mirages*



on the critical water-sources swerving in Syria and Lebanon.

August 1965

Maj. Amos Lapidot is nominated CO of 101 squadron.

July 14, 1966

An historical day for the *Mirage*; a four-aircraft formation from 101 squadron, on patrol on the northern border, was surprised at 16:35 by two Syrian *MiG-21s*, armed with *Atoll* missiles, in the airspace over the village of *Pick*, in the southern part of the *Golan Heights*. *Cpt. Yoram Agmon*, flying *Mirage 59*, (which, during the years, was to become the champion Ace of destroyed enemy aircraft in the IAF) instantly dropped his fuel tanks, positioned his *Mirage* at 350m behind one of the *MiGs* and fired his cannons. Again, the spread was ineffective. He tried again from 220m, and this time the *MiG* was hit, entered into a classical spin and the Syrian pilot was seen ejecting. Because of exceeded use of the afterburners, the pilots cut contact and returned to base for refueling. However, the IAF offered a beautiful gift to the French, who were celebrating the fall of the *Bastille*: it was the first victory of a *Mirage* in a dogfight with a *MiG-21*! It was also the first victory in a dogfight during the tenure of *Col. Moti Hod* as the IAF commander-in-chief. After landing, the armories checked the guns of the aircraft and discovered that *Agmon* used 101 rounds - same as the squadron number.

August 15, 1966

A patrol boat of the Israeli Navy ran aground on a sand bank in the *Lake of Galilee* the previous night. The Syrians discovered this "opportunity" with daylight. A quartet of *MiG-17s* escorted by a couple of *MiG-21s* tried their luck, but the sitting duck proved stingy and its anti-aircraft guns reduced the quartet to a trio. Two *Mirages* from the First Jet Squadron were sent to see what more was to be done, but the skies were clear. They flew on patrol, and not much later several *MiG-21s* made their appearance. *Cpt. Yehuda Koren* fired a *Shafir* missile, which preferred to chose the ground as a target. He tried his cannons from 800m, but - as usual - nothing happened. From 300m, however, the cannons sent the *MiG* ablaze to the ground.

November 13, 1966

Maj. Ran Ronen and *Cpt. Avraham Shalmon* (from the Bat squadron) are directed to the region of Mount *Hebron* to meet Jordanian *Hunters*. *Ronen* intercepted one of the *Hunters* and was pleasantly surprised to find a well-trained, skilled and resourceful opponent. The Jordanian pilot flew at an altitude of 50 ft, where *Ronen's* weapons could not be effective. However, the *Hunter* had to climb 100 ft because of a small ground hump, and a few rounds from the *Mirage's* (No. 84) cannons did the job: the *Hunter* caught fire and the pilot ejected. Unfortunately, he died when he hit the side of a mountain. The dogfight lasted for 8.5 exhausting minutes. Later on it was made known that the Jordanian pilot, *Maufik Sallatti*, was the No. 1 fighter of the Royal Jordanian Air Force. His Majesty *King Hussein* honored his memory by naming one of the RJAF bases after him.

November 29, 1966

Air controllers directed *Lt. Ilan Gonen* and *Cpt. Michael Haber* from 101 squadron to an encounter with two Egyptian *MiG-19s*, somewhere along the border. *Cpt. Haber* (in *Mirage 52*) fired a "Diamond" missile (*Matra R.530*) after a "lock-in" confirmation from the aircraft's radar, from a distance of 2000m. A mighty explosion destroyed the *MiG*. It was the first IAF successful use of an air-to-air missile, and the world premiere of the "Diamond". *Lt. Gonen* tried the same with the second *MiG*, but failed. *Haber* took over from 400m. The cannons did nothing. But from 200m the *MiG* was hit on the left wing and the Egyptian pilot ejected.

April 7, 1967

A great day for the IAF interception pilots: six enemy aircraft destroyed.

Cpt. Ittach Spector and *Cpt. Binyamin Romach* from 101 were the first to engage a couple of Syrian *MiG-21s* over *Kunetra*. *Spector* took in one of the *MiGs*, and after a short chase used his cannons from a short distance, and "noted it in his book". *Romach* followed the second *MiG*, and from 400m damaged it with his cannons. *Spector* was not satisfied, and obliged with an additional short burst of fire from his cannons. A second explosion in the *MiG* credited both pilots with the kill. *Maj. Ran Ronen* and *Cpt. Avraham Shalmon* from the Bat squadron engaged another couple of Syrian *MiG-21s*. *Ronen* fired a *Shafir* missile, which chose to pass between the exhaust and the wing of the *MiG* - and the *MiG* went on. *Ronen* relied again on a short distance cannons blast. An explosion of the drop fuel tank convinced the *MiG* pilot to eject. *Shalmon* spent two *Shafir* missiles with no success, but several bursts of cannon sent the *MiG* limping home, where it landed at its base.

In the afternoon, *Maj. Ezra Dotan (Baban)*, *Maj. Mordechai Yeshurun* and *Cpt. Oded Sagi* from the Bat squadron were directed towards the village of *Pick*, where four Syrian *MiG-21s* were patrolling the area. *Baban* was the first to engage, but one *Shafir* and several cannon rounds - from 400m - did not help him. But from 250m, the cannons were effective and the *MiG* exploded in the air. *Lanir* (in *Mirage 60*) took on "his" *MiG*, and from 200m the huge explosion of the *MiG* left him no choice but to fly through it. He found his *Mirage* covered with soot, unable to see anything around him. *Yeshurun* understood the situation immediately, aligned with him and directed him home. Slowly the soot diminished and *Lanir* landed safely at his home base.

Cpt. Avraham Salpak from 101 - escorted by a colleague - discovered another couple of *MiGs* patrolling in the same area. He dropped his external fuel tanks, went on pursuit after one of the *MiGs*, put a heavy finger on the cannons' trigger and did not let go until the *MiG* exploded.

June 1967: THE SIX-DAY WAR

At the outbreak of the war, the IAF order of battle included 65 *Mirages*, operated by three squadrons. Their contribution to the stupendous and unprecedented victory was decisive. The first wave of four aircraft formations attacked the following Egyptian airfields: *El-Arish*; *Jebel Libni*, *Bir Thamada*, *Bir Gafafa*, *Kabrit*, *Inshas*, *Cairo-West*, *Abu Suweir* and *Fayid*. Each *Mirage* carried two 250kg bombs and 125 rounds of 30mm cannon shells for each cannon. They started by disabling the runways with the bombs, and then strafed the aircraft on the ground with the cannons.

The second wave attacked the airfields *Abu-Suweir*, *Billibas*, *Gardaka* and *Cairo West*. Over *Cairo West* the IAF pilots were surprised by *MiG-21s* that succeeded to hit *Cpt. Yair Noiman's Mirage* (from 101). *Noiman* ejected, but when reaching the ground a mad mob lynched him.

By noon, a third wave attacked Egypt, Syria and Jordan. Over Syria, two *Mirages* were hit: *Lt. Meir Shachar* died in combat; the First Jet Squadron CO *Maj. Amichai* brought his damaged *Mirage* back to Israeli territory, but had to eject near *Golani* road junction and was wounded.

During the day the *Mirages* destroyed in the air *MiG-21s*, *Il-14* as well as one Jordanian and one Lebanese *Hunter*.

During the second day of the war - June 6 - *Mirages* were sent to both ground-attack and interception missions, on all theaters of action. 101 squadron was credited with two *MiG-19s*, four *Su-7s* and one *MiG-21*. Among other operations, during the third day, the *Mirages* destroyed the radar compound at the *Gardaka* airfield in Egypt, including



two by-standing Mi-6 helicopters. A four aircraft formation of *Mirages* from the First Jet Squadron took off to escort a *Vautour* mission over the notorious H-3 airfield in Iraq. Iraqi *Hunters* and MiG-21s intercepted them. Cpt. Gidon Dror sent to the ground one *Hunter*, but his *Mirage* was damaged; he eject and was taken POW. Another *Mirage* was also damaged, but *Baban* brought it home.

During the night Cpt. Baruch David, from 101 downed an Egyptian Il-14 above the Mitle pass in Sinai, but a SA-2 missile killed him.

During the fourth day, IAF lost Cpt. Benny Romach from 101; he was attacking a SA-2 site, when a missile from a neighboring battery hit his *Mirage*. An additional *Mirage* was lost when its fuel tanks dried up, but the pilot Maoz Poraz eject and was rescued.

In the course of the Six-Day War, the *Mirages* were credited with the distraction of 48 enemy aircraft in mid-air, as follows: 9 MiG-17s, 12 MiG-19s, 15 MiG-21s, one Il-14, one Il-28, 5 *Hunters*, 5 Su-7s. In addition, two more enemy fighters spinned to the ground without active solicitation of IAF pilots. 101 squadron lost four *Mirages*; the First Jet Squadron lost four *Mirages* too, while the Bat squadron lost only one.

July 1967 - August 1970: THE WAR OF ATTRITION

July 8, 1967

A couple of *Mirages* from the Bat squadron covered *Mysteres* which were attacking Egyptian forces along the Suez Canal. Four MiG-21s were sent to disturb the job, so the *Mirages* engaged them, and Maj. Avihu Ben-Nun downed one of the MiGs. It was the first dogfight since the Six-Day War.

July 15, 1967

Maj. Avihu Ben-Nun and Capt. Eitan Carmi from the Bat squadron went on a very dangerous mission to photograph Egyptian territory. It was a successful operation, but on their way back the Egyptians discovered the intrusion and sent up a whole flotilla of MiGs to intercept them. However, four *Mirages* from the Bat squadron were ready for the challenge, and Lt. Col. Ran Ronen downed a MiG-21 with the first successful use of the *Shafir 1*. Maj. Eliezer Prigat aimed with his cannons at another MiG-21, which exploded in the air. Cpt. Asher Snir got rid of two MiG-17s. Lt. Shlomo Egozi got his *Mirage* badly damaged by a Surface-to-air missile and bailed out safely.

September 1967

Maj. Oded Marom is given the command of 101 squadron.

June 13, 1968

The couple of photo-reconnaissance *Mirages* from the Bat squadron, escorted by two fighters, took off for a mission over a missiles factory west of Cairo-West airport and over the pens of new aircraft at the same airport. The mission was carried out at an altitude of 30ft and at a very high speed.

June 27, 1968

Same formation as above gathered intelligence about Syria, the Iraqi petrol pipeline position, and also about military bases south of Damascus.

August 12, 1968

A couple of *Mirages* from the First Jet Squadron were alerted of two Syrian MiG-17s reported above *Kunetra*. The pilots cannot understand where the MiGs disappeared! So another couple takes off to solve the mystery. They finally discovered the MiGs on the ground, at *Betzet* strip in northern Israel! After a short interrogation, the Syrian pilots explained that they thought they were in Lebanon. A nice gift for the IAF!!!

December 1968

Lt. Col. Oded Marom, now the squadron CO of 101, downs a MiG-17 by cannon fire, in the southern skies of the Suez Canal.

February 24, 1969

The IAF decides to send a punishment mission to the terrorist bases near Damascus, out of which mobile *Katiusha* launchers were deployed to attack civil settlements in northern Israel. The Syrians tried to intercept with MiGs, and in the dogfights Ya'akov Richter from the First Jet Squadron and Avraham Shalmon from 101 are credited with one MiG-17 each.

March 7, 1969

A couple of *Mirages*, patrolling in the area of the Bitter Lake in Sinai, are diverted outwards to intercept four MiG-21s which were reported to have penetrated the Sinai airspace. In the following dogfight, Lt. Zukerman, one of the youngest pilots of 101, logs one MiG-21 to his credit (cannon fire).

May 21, 1969

Four Egyptian MiGs penetrated again the air space of Sinai. Two *Mirages* from the Bat squadron, in stand-by duty at Refidim AFB, take off. An additional couple from the Bat, stationed in Tel-Nof AFB joins the party. Asher Snir, leading the first couple, launches a missile which hits the target, but the MiG is still around. Ran Ronen leads the second formation and gets rid of one MiG. His wingman, Reuven Rozen, makes good use of the reliable cannons and sends another MiG to the ground. (It was later proved that Snir's MiG was also resting in peace at zero altitude).

May 29, 1969

The Syrians try to intercept two photo-reconnaissance *Mirages* from the Bat squadron flying on a mission over the Golan Heights. Two other *Mirages* from the First Jet Squadron, on patrol in the neighborhood, are alerted. Cpt. Itamar Noiger launches a missile which hits the MiG, but it still keeps flying. Maj. Uri Even-Nir follows the scene, approaches the MiG and reports that the cockpit is empty! Itamar was credited with the delayed result of his hit.

June 17, 1969

A formation of four *Mirages* from the Bat squadron, under the command of Lt. Col. Amos Amir, is on a photographing mission deep into Egyptian territory. On their way they produce sonic booms over the private palace of President Nasser in Heliopolis. The result of the shattered glass was the immediate dismissing of the Egyptian Air Force generals by president Nasser himself.

June 24, 1969

Lt. Col. Amos Amir, squadron CO of the Bat squadron, downs an Egyptian MiG-21 - a modest gift to the new Egyptian Air Force commander, appointed that same day.

June 26, 1969

Maj. Itach Spector from 101 and Cpt. Asher Snir from the Bat, destroy one MiG-21 each.

July 2, 1969

Up to this date, the Egyptians usually initiated aerial engagements in the vicinity of the Suez Canal, when Israeli aircraft were crossing the line on photographing and attack missions. Now it was decided to change the tactics, and penetrate the Egyptian airspace wherever SAM batteries were non-existent. The campaign was code-named "*Rimonim*" (Pomegranates, in Hebrew), nicknamed by IAF pilots "*Texas*" and "*Arizona*" (like in the Wild West). IAF fighters went in, while other *Mirages* were circling high above or somewhere near-by just waiting to oblige. The tactic proved fruitful, and a few ripe fruits fell down to the ground. That same day, ten MiG-21s showed up for the encounter. Lt. Col. Amos Amir (Bat squadron) got one down, Eitan Karmi (Bat squadron) got two MiGs.

July 7, 1969

Two MiGs credited to the First Jet Squadron.



▲ Lanir's "Black" Mirage N°60 just after landing. (7, April 1967)

Series of frames from the Mirage gun camera showing the second shot down of Mig 19. (29, October, 1966). ▼



Before the hit



The hit



After the hit



Before the hit



The hit



After the hit

▲ Series of frames showing the shot down of one of six MiG 21s that were downed in 7, April 1967

▼ Front view of Lanir's "Black" Mirage N°60.



IAF KILL MARKS



Iraq



Lebanon



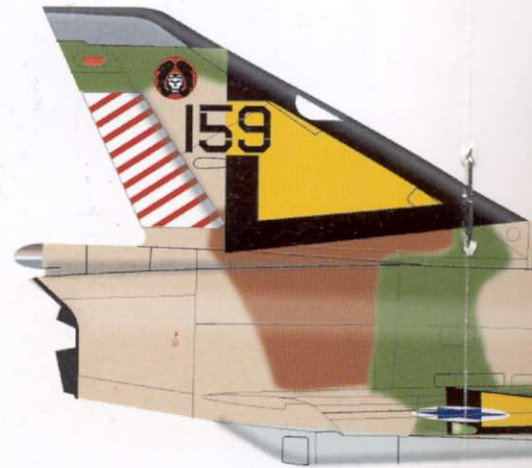
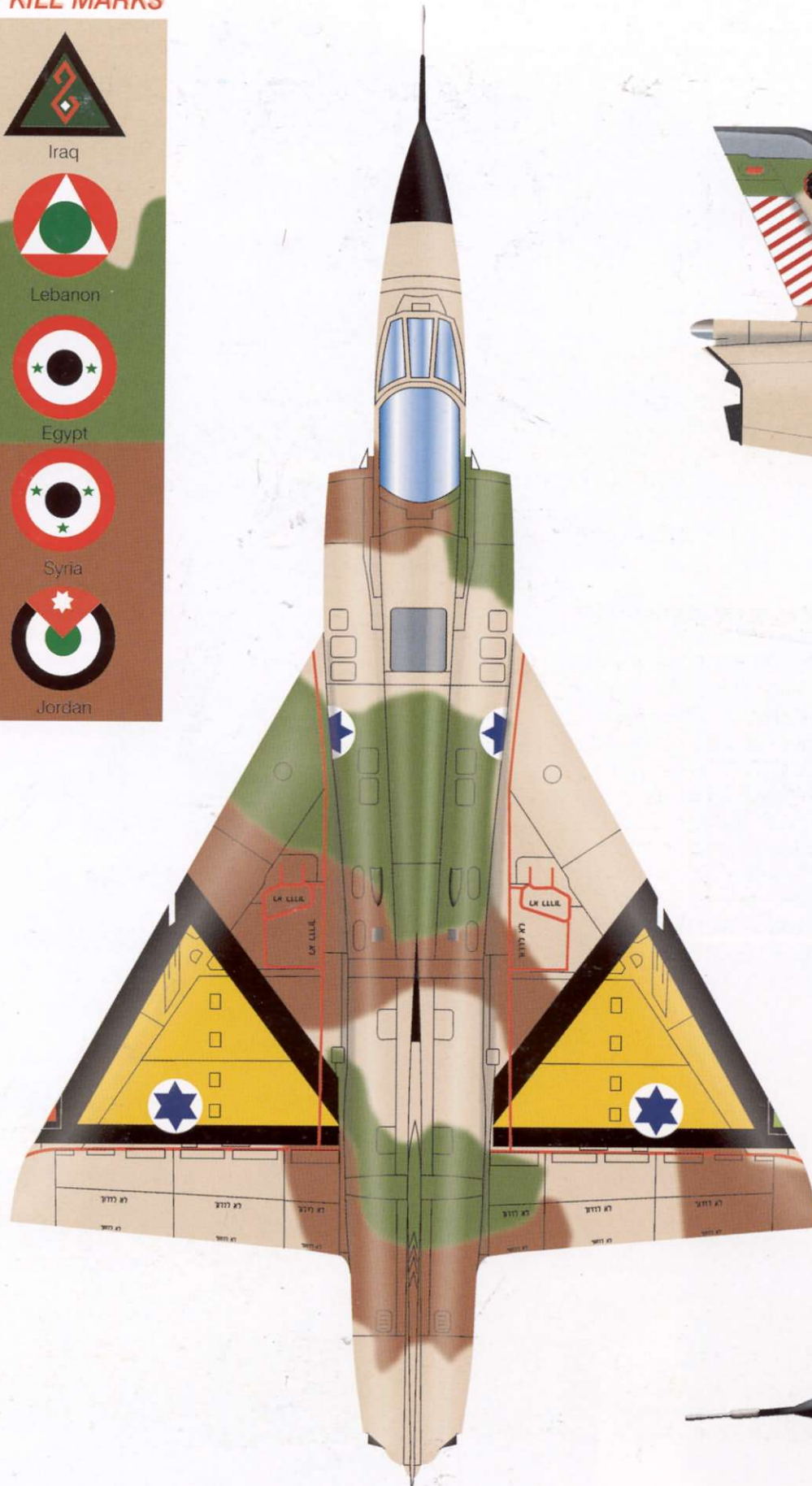
Egypt



Syria



Jordan



Mirage III C



TECHNICAL DATA

TYPE: CJ-day fighter/bomber, R-fighter reconnaissance, B-trainer/attack.

TECHNICAL DATA

TYPE: CJ-day fighter/bomber, R-fighter reconnaissance, B-trainer/attack.

ENGINE: One Snecma Atar 9C turbojet rated at 9,370lb dry and 14,100lb with max. afterburner.

DIMENSIONS: Wing span - 8,22m.;

length - 14,73m.; height - 4,25m.; wing area - 34,85m².

WEIGHTS: Empty - 6,156kg.; max. loaded - 11,800kg.

ARMAMENT: Two 30mm DEFA 5-52A guns

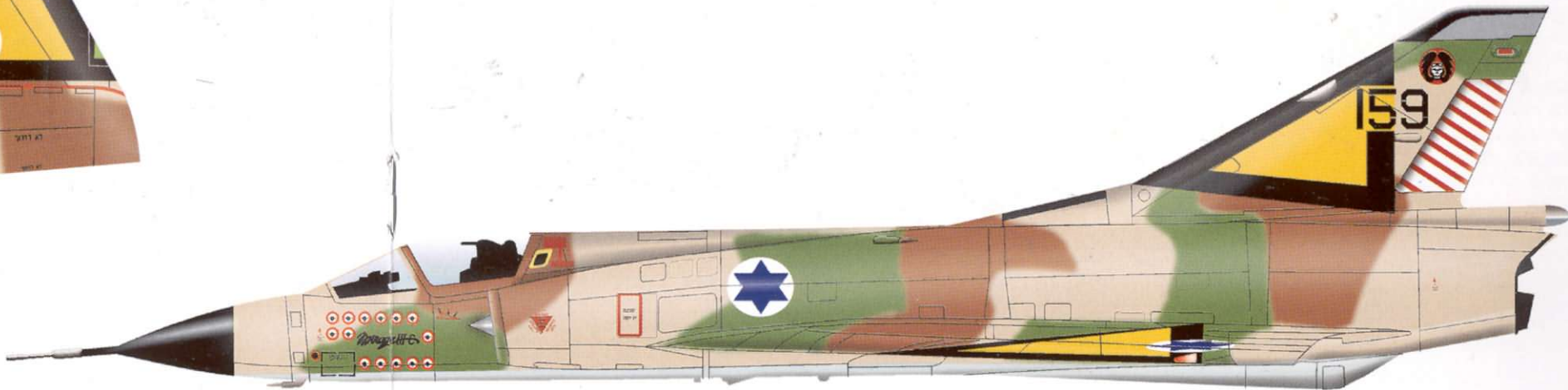
with 125 rounds each plus 2 AIM-9 Sidewinder or Shfrir 1or 2, or one Matra R-511 or 2 bombs or other stores of up to 454kg. each.

PERFORMANCE: Max. speed - 1,390km/h clean at sea level, Mach 2.15 at 11km.

climbing rate - 5,000m/min.;

max. altitude - 18,000m.;

range - 1,320km.; combat radius - 760km.



July 8, 1969

The two *RJs* from the Bat squadron were on duty over the Golan Heights, when Syrian *MiGs* appeared. A flight of four *Mirages* (two from 101 and two from First Jet Squadron), waiting in ambush, destroys seven *MiGs*.

July 20, 1969, THE "BOXER" CAMPAIGN

It was during an air-strike on SA-2 missiles batteries and anti-aircraft guns, well entrenched along the Suez Canal. At 17:00 somewhere north of Kantara, the Egyptian *MiGs* tried to intercept the aircraft attacking. To their help were dispatched: Giora Yoeli, Giora Epstein (the world "Ace", with 17 air-combat credits) from 101 squadron, Iftach Spector, Michael Tzuk from the same squadron stationed in the Refidim AFB, and Eitan Ben-Eliyahu (nowadays Commander-in-Chief of the IAF) and Eli Zohar, from the same squadron. Eli Zohar loses his *Mirage* to a *MiG-21*, ejects and is rescued. Eitan Ben-Eliyahu's aircraft is hit by flake, he ejects and is rescued. Iftach Spector downs a *MiG-21* with a missile. Epstein and Yoeli down one *MiG-17* each. And the IAF anti-aircraft artillery closes the day with two *MiG-17s*.

July 29, 1969

The *Mirages* destroy seven Egyptian aircraft. Two *Su-7s* are being credited to Shmuel Gordon and Michael Tzuk, both from 101.

September 11, 1969

Great joy, big air-show: eleven Egyptian aircraft are downed by the *Mirages* out of which two *Su-7s* destroyed by Giora Epstein and Ilan Gonen (101). Cpt. Giora Rom (Bat squadron) has to eject, and fell wounded into Egyptian captivity.

October 2, 1969

Mirage 755 (originally 55) leaves the IAF Basic Maintenance Unit after being completely restored, and goes back to its Squadron.

December 6, 1969

Cpt. Giora Rom is released from captivity and returns to the Bat squadron.

December 11, 1969

Two *Mirages* from the Bat and two from the First Jet destroy four Syrian *MiGs* in a dogfight east of the Golan Heights.

December 24, 1969

Cpt. Amon Levushin from the Bat gets his *Mirage* badly damaged by an SA-2 missile, but in an act of heroic daring flies it back home.

January 2, 1970

A formation of four *Mirages* from the First Jet Squadron goes out for an airstrike on the Golan Heights. Maj. Shlomo Veintrob, hit by flake, dies in the crash.

February 5, 1970

In a dogfight with the participation of both *Phantoms* from the "Hammers" and *Mirages* from Bat, two Egyptian *MiG-21s* were "shared" between the two aircraft models.

February 9, 1970

A young pilot from 101, Avinoam Kaldes, has to abandon his damaged plane and falls in Egyptian captivity.

February 26, 1970

A formation of four *Mirages* from the Bat destroys three *MiG-21s* in the course of "Blossom 11" (see details on the "Blossom" Mission in book No. 1 of this IAF Aircraft Series The F-4 Phantom II p. 22).

March 25, 1970

Four *Mirages* from 101 took-off to escort other IAF aircraft that were on an airstrike mission over Egypt. Twelve *MiG-21s* tried to interfere, but after Iftach Spector and Hertz shot down one *MiG* each and Israel Baharav got two *MiGs*, the other eight *MiGs* just fled!

March 27, 1970

In a similar escort mission, this time *Mirages* from both the Bat

and 101, eight *MiGs* are trying their luck. The result: Ronen, Snir and Shalmon are credited with one *MiG* each, and Baharav does it again - two *MiGs* in the logbook!

April 1970

Lt. Col. Iftach Spector is commissioned CO of 101 squadron.

April 2, 1970

Mirages from the Bat shot-down three Egyptian *MiG-21s*.

April 25, 1970

Two Egyptian *Il-28s* penetrate the Israeli airspace and are shot-down by *Mirages* from the Bat squadron.

April 28, 1970

Two Egyptian *Su-7s* penetrate the Israeli airspace and are shot-down by *Mirages* from the Bat squadron.

May 5, 1970

In a dogfight with Syrian *MiG-17s*, two of them were shot-down by an A-4H Skyhawk (see details in book no. 2 of this series - the A-4 Skyhawk p. 34). Cpt. Snir from the Bat shoots down a third *MiG*. It was later confirmed that this *MiG* was flown by one of the top Syrian fighter pilots.

May 14, 1970

Mirages from the Bat shot down two Egyptian *MiGs* above the Suez Canal.

May 15, 1970

Mirages from the First Jet Squadron shot down three Egyptian *MiGs* over the Suez Canal.

July 30, 1970

The most famous dogfight of the War of Attrition - the encounter with soviet pilots flying Egyptian fighters. Asher Snir knocks down one and Avraham Shalmon jots down two *MiGs* (both from the Bat squadron). Two additional *MiGs* are credited to the *Phantoms*.

August 8, 1970

A cease-fire is officially declared, and the War of Attrition comes to its end.

October 1970

The Bat squadron is converted to *Phantoms*. Its *Mirage* IIICJs are divided between the other two squadrons, and the couple of IIIRJ is stationed with 101.

October 1973: THE YOM KIPPUR WAR

At the outbreak of the war, the IAF had only about 40 operational *Mirages* in its order of battle. The First Jet squadron operated 19 aircraft, while the First Fighters squadron operated a mix of *Mirages* and *Neshers*.

The three *Mirage* IIIBJs were with the Hornet squadron, which flew *Neshers* (*Mirage* IIIBJ N° 88 transferred to the IAI in April 1969).

October 6, 1973

At 13:55, a large target was spotted moving very fast towards Tel-Aviv. A formation of 2 *Mirages* and 2 *Neshers* from the First Fighter Squadron was sent to encounter it. Maj. Eitan Carmi, flying *Mirage* 59, identified an AS-5 Kelt air-to-surface missile launched from an Egyptian Tu-16, and succeeded to shoot it down into the sea.

Cpt. A. from the First Jet Squadron destroys in a dogfight a Syrian *MiG* - the first in this war. Yitzhak Nir and Dror Hirsh are each credited with one Egyptian *Su-7* kill.

October 7, 1973

The famous *Mirage* 59 crashed at takeoff (It was repaired and returned to service within a year). Carmi downs an Egyptian *MiG-21* over the Suez Canal.

October 8, 1973

Oded Marom sends to the ground a Syrian *MiG-17* in the morning. A formation of four Iraqi *Hunters* strikes during the afternoon an artillery battery in the Tassa area; Avraham Shalmon downs two of them and Oded Marom one. The First Fighter Squadron had a total of 11 kill credits on this day.

October 13, 1973

A couple of *Mirages* from the First Fighter Squadron goes on a mission over Syria. The most admired squadron CO *Avi Lanir* was hit and managed to eject, but was cruelly murdered by the Syrians. *Israel Baharav* is commissioned to replace him.

October 18, 1973

Giora Epshtein downs his first aircraft in this war - an Egyptian *Mi-8* helicopter. Eleven more enemy aircraft were credited to him during this war, making him a world-class Ace with a total of 17 kills.

EPILOGUE

Till the end of the *Yom Kippur* War, the *Mirages* are known to have destroyed several more enemy aircraft, but no precise data are available.

Since the end of the war until the sale of the *Mirages* to Argentina in 1982, they served as operational trainers in the Negev squadron.



Mirage N° 22 from the "First Jet" squadron was the first ▲ to crash after landing because of engine-cut.

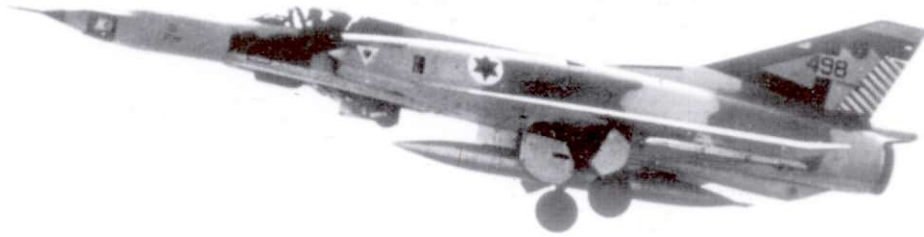


▲ Mirage N° 755 from the "Bat" squadron (mid. 60s).

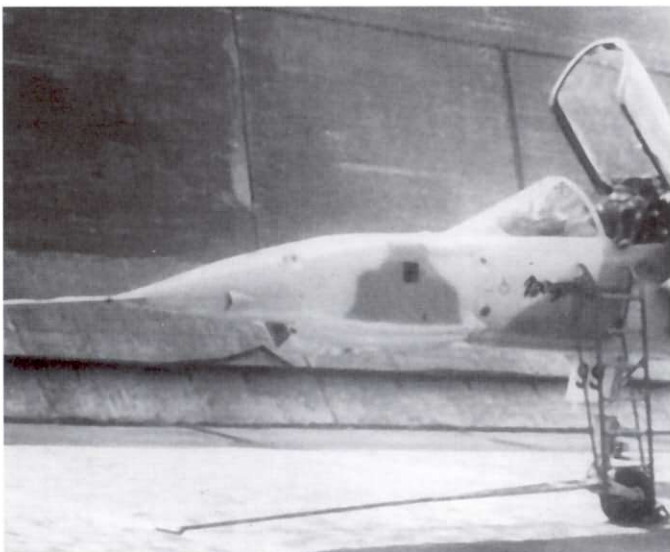
A nearly parked row of Mirage IIICJs from the "First Jet" squadron await their pilots during the Six Days War. ▼



Mirage IIICJ N° 498 from
the 101 squadron fixet
with "TZNIUT" nose section.



Mirage IIICJ N° 498 from
the 101 squadron fixet
with "TARMIL" nose section.



Mirage IIICJ N° 799 from
the "BAT" squadron fixet
with "UNIVERSAL" nose section.

▼ "TARMIL" nose section.

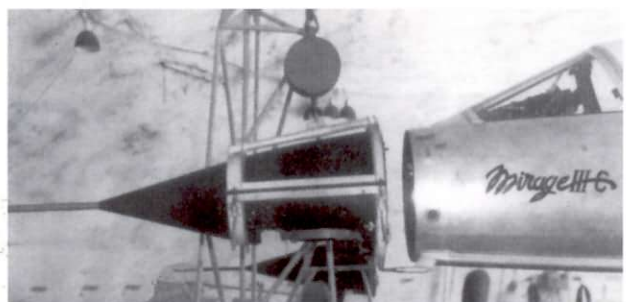


Photo-Reconnaissance Mirages nose sections



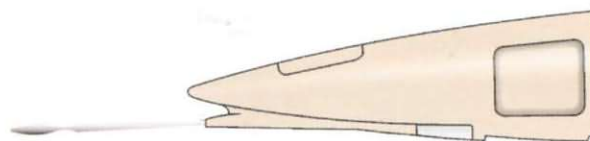
TARMIL - for vertical photography.



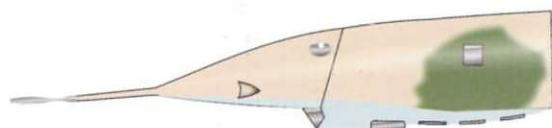
SHFORFERET - for panoramic photography.



TASHBETZ - for oblique photography.



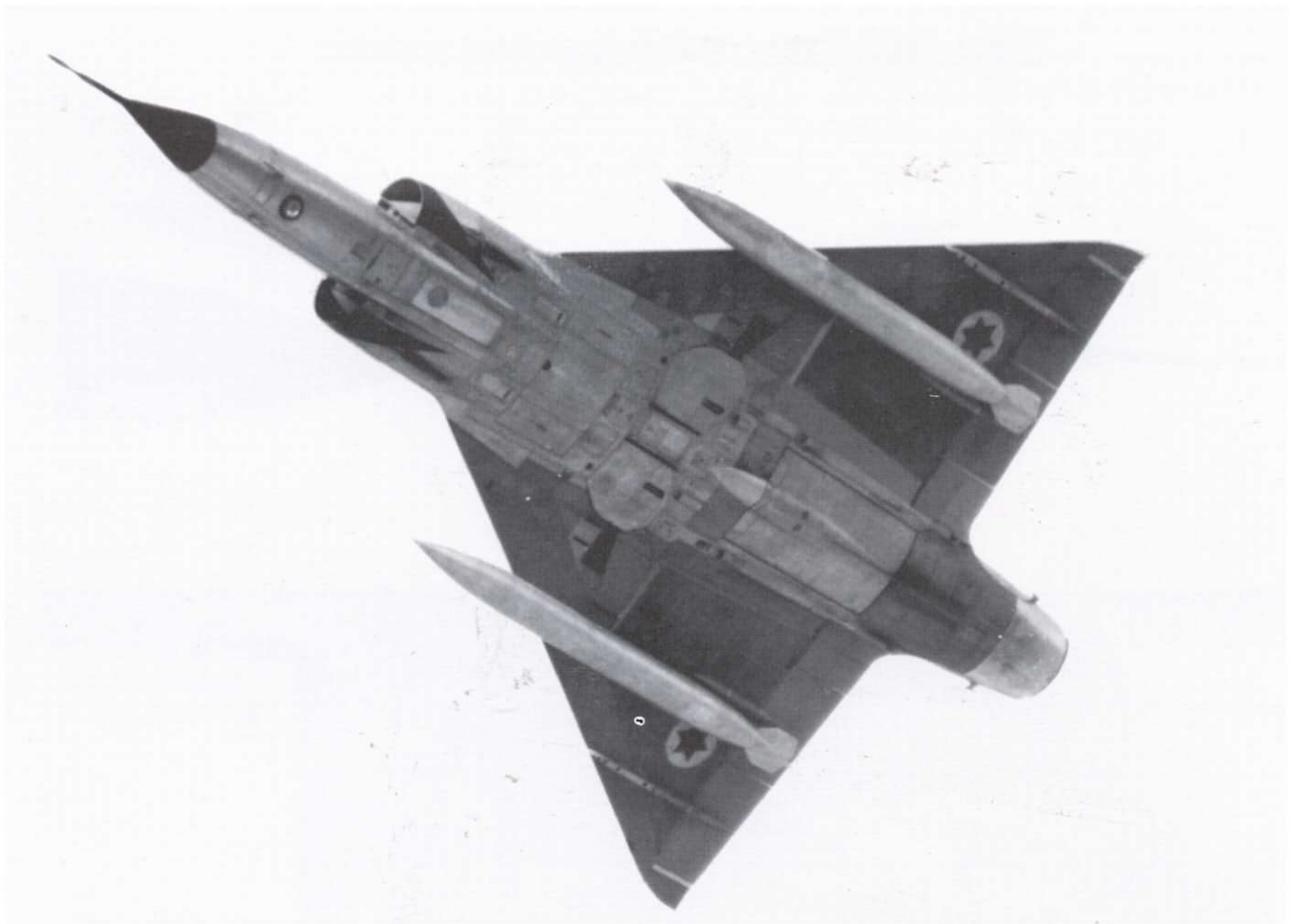
MOSHEL - for low altitude panoramic photography.



UNIVERSAL - for universal photography.



TZNIUT - for long range oblique photography.



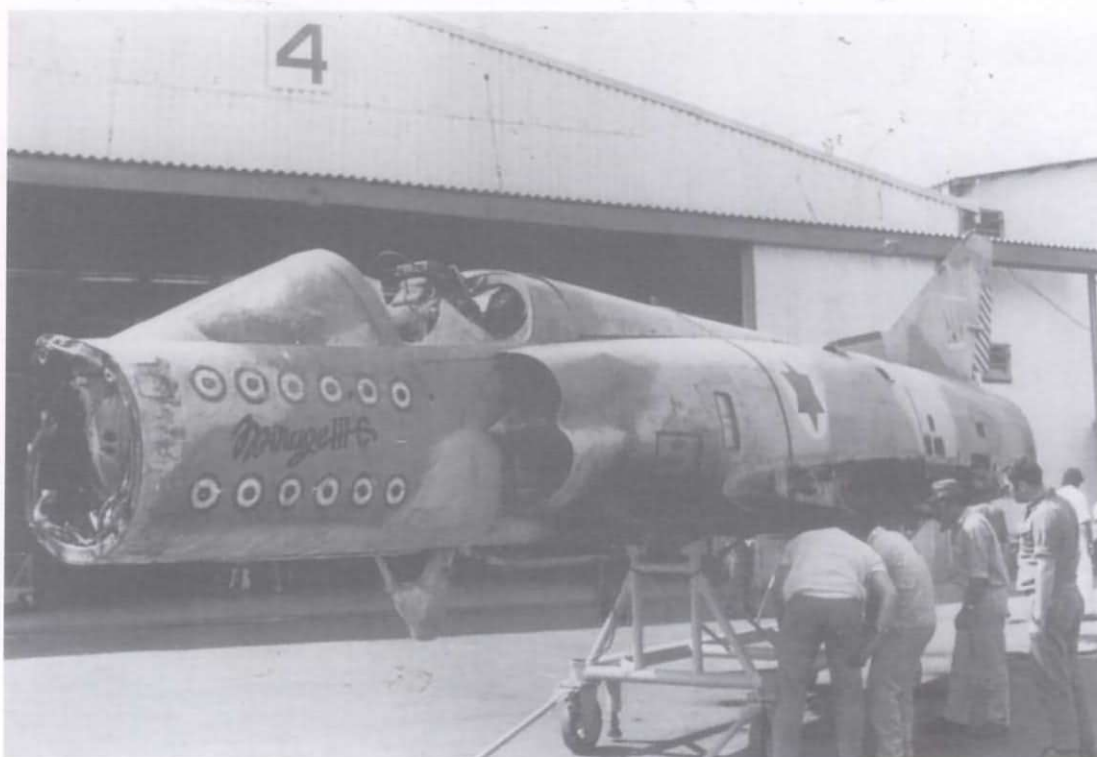
An unusual underside view photo of Mirage IIIICJ in flight.▲

Mirage IIIICJ N° 29 from the Fierst Jet squadron early 60's.▼



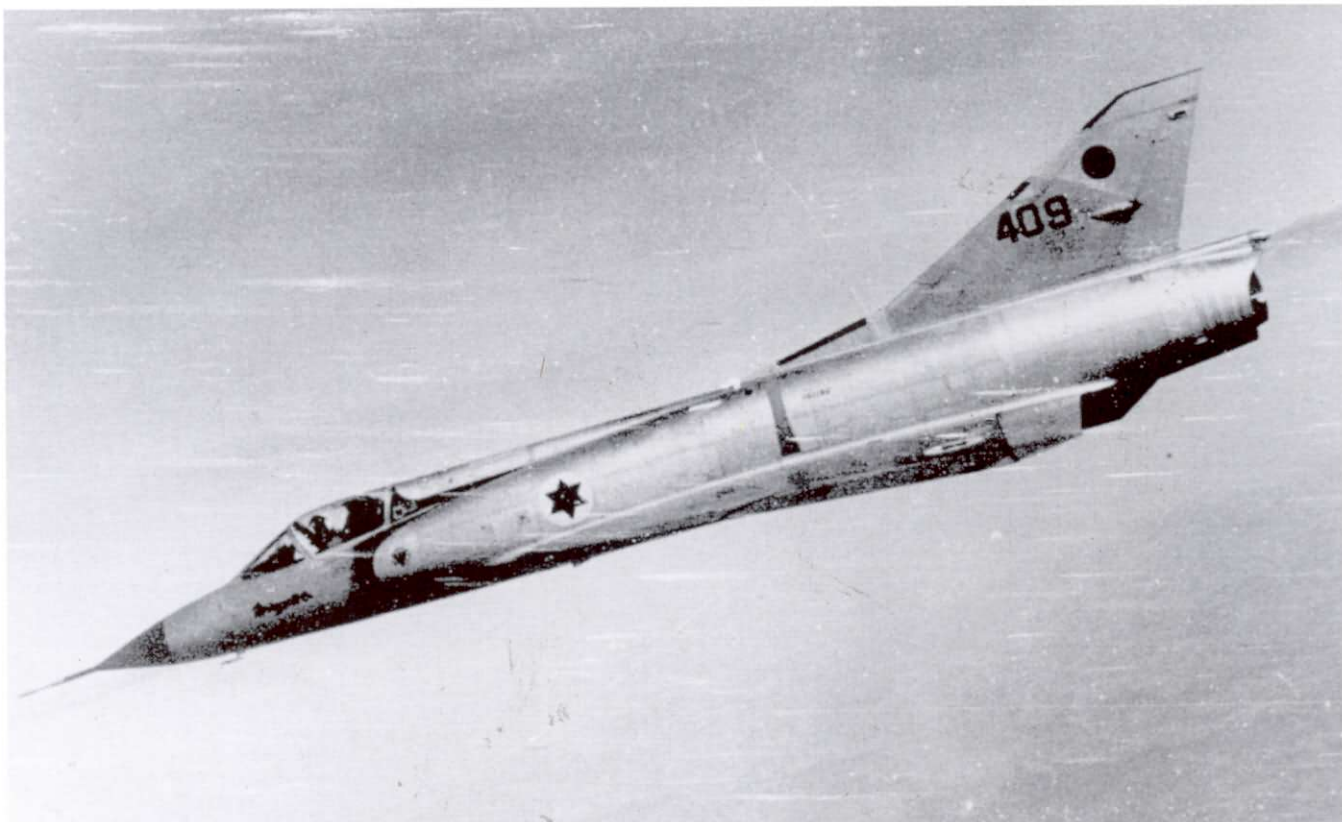


Mirage IIICJ N° 164 from the First Jet squadron carries 5 kill marks - mid. 70's. ▲



▲
Mirage IIICJ N° 259
from the 101
squadron after the
Six Days War carries
10 kill marks.

◀
Mirage IIICJ N° 159
from the 101
squadron after its
takeoff crash carries
12 kill marks - Oct. 1973.



Mirage IIICJ N° 409 from 101 squadron "diving". ▲

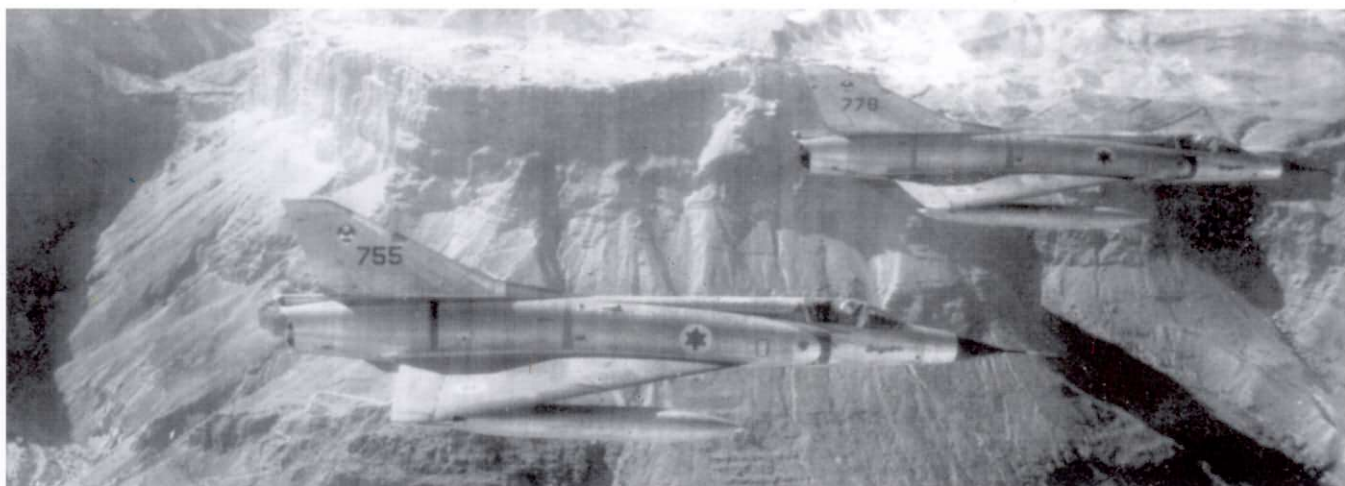
Mirage IIICJs line from 101 squadron (notice the variety serial numbers). ▼





▲ An IAF Mirage pilot just returns from a mission, on its way out from the cockpit with the help off its ground crew man. Finishing touches are applies to an IAF Mirage pilot by its ground crew man before take-off. ▼





▲ Formation of two Mirage IIICJs from the Bat squadron flying over Mazada.

Mirage IIICJ N° 107 from the Negev squadron carries 3 kill marks - end 70s'.▼



Mirage IIICJ N° 153 from the Negev squadron in air-superiority camouflage - end 70s'.▼

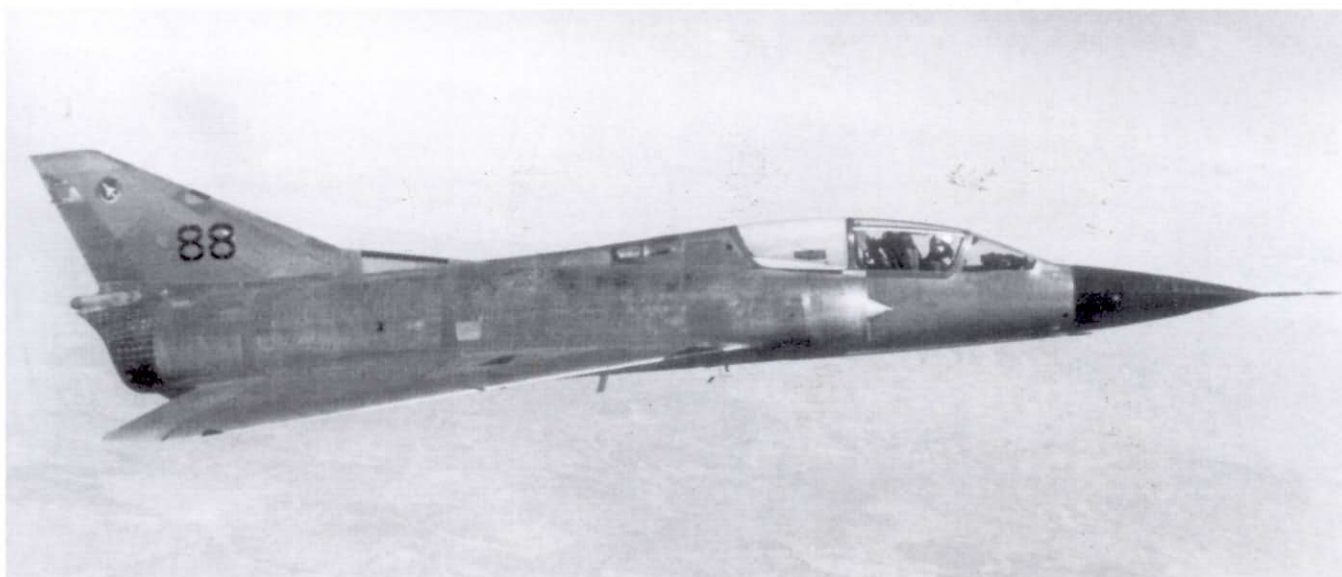




Mirage IIIICJ N° 33 from the 101 squadron just after take-off (early 70s').

Mirage IIIICJ N° 259 from the 101 squadron carries 10 kill marks - after the Six Days War.





▲ Mirage IIIIBJ N° 88 in one of its test flights as the "Technolog". The prototype aircraft that IAI used to test the J79 engine for the "Nesher".



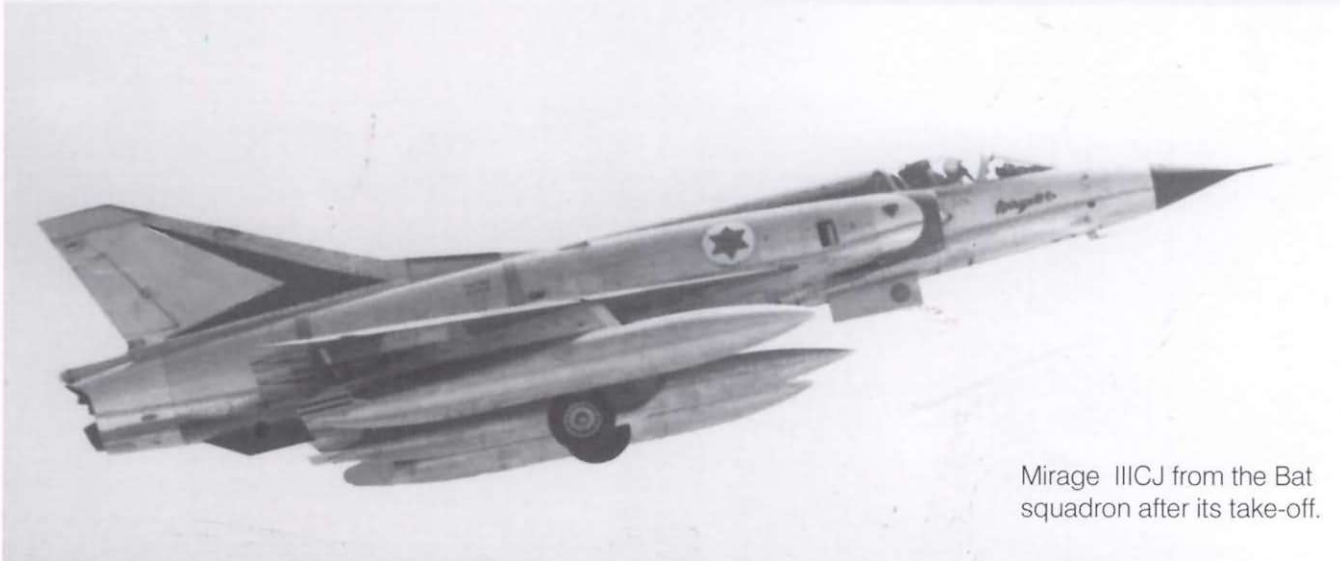
◀ Mirage IIIIBJ N° 86 just after landing in Ramat David AFB carries Israeli civilian identify Nr. 1964.

Mirage IIIIBJ N° 89 prepared for a training mission.





Mirage IIICJ N° 778 from 101
squadron after its take-off..



Mirage IIICJ from the Bat
squadron after its take-off.



Mirage IIICJ N° 942 from 101
waiting for its take-off permission. .

Mirage kills table

DATE	A/C TYPE	QUANTITY	DATE	A/C TYPE	QUANTITY
14.7.1966	MiG 21	1	14.5.1970	MiG 21	2
15.8.1966	MiG 21	1	15.5.1970	MiG 21	1
13.11.1966	Hanter	1		MiG 17	2
29.11.1966	MiG 19	2	16.5.1970	MiG 17	2
7.4.1967	MiG 21	6	3.6.1970	MiG 21	3
5-11.6.1967	MiG 17	9	25.6.1970	MiG 21	1
	MiG 19	12	26.6.1970	MiG 21	2
	MiG 21	15		MiG 17	2
	Il-14	1	10.7.1970	MiG 21	1
	Il-28	1	27.7.1970	MiG 17	2
	Hunter	5	30.7.1970	MiG 21	3
	Su-7	5	6.10.1973	AS-5 Kelt	1
8.7.1967	MiG 21	1		MiG 21	1
15.7.1967	MiG 17	2		Su-7	2
	MiG 21	4	7.10.1973	MiG 21	1
10.10.1967	MiG 21	1	8.10.1973	MiG 17	1
10.12.1968	MiG 17	1		Hunter	3
12.2.1969	MiG 21	1		MiG 21	7
24.2.1969	MiG 17	2	18.10.1973	Mi-8	1
3.3.1969	MiG 21	1			
8.3.1969	MiG 21	1			
14.4.1969	MiG 21	1			
5.5.1969	MiG 21	1			
20.5.1969	MiG 21	2			
21.5.1969	MiG 21	3			
29.5.1969	MiG 21	1			
24.6.1969	MiG 21	1			
26.6.1969	MiG 21	4			
2.7.1969	MiG 21	3			
8.7.1969	MiG 21	7			
20.7.1969	MiG 21	1			
	MiG 17	2			
29.7.1969	Su-7	4			
	MiG 17	2			
	MiG 21	1			
11.9.1969	MiG 21	9			
	Su-7	2			
6.10.1969	MiG 21	2			
11.11.1969	MiG 21	2			
27.11.1969	MiG 21	1			
11.12.1969	MiG 17	2			
	MiG 21	1			
4.1.1970	MiG 21	2			
8.1.1970	MiG 21	3			
8.2.1970	MiG 21	1			
9.2.1970	MiG 21	1			
26.2.1970	MiG 21	3			
6.3.1970	MiG 21	2			
16.3.1970	MiG 21	1			
25.3.1970	MiG 21	4			
27.3.1970	MiG 21	5			
2.4.1970	MiG 21	3			
25.4.1970	Il-28	1			
5.5.1970	MiG 17	1			
			TOTAL		190

TOP SCORER MIRAGES

Mirage N°	Kills
58	13
59	13
68	11
83	10
79	10
66	8
03	8
82	6
81	6
76	6
52	6
50	6
44	6
30	6
78	5
77	5
71	5
64	5
53	5
32	5
86	4.5



Mirage IIICJ N° 159 from the "101" squadron on display during a fire air-show (on its left - IAI-Sa'ar).

Mirage IIICJ N° 111 reside at the IAF Museum.

(the 13 kill marks doesn't show the reality for this aircraft, actually this Mirage downed only one enemy aircraft).



Camouflage

The basic scheme for Israeli Mirages was applied according to a single pattern, and were remarkably uniform when the a/c was painting in the IAF. However, over time, the colors have remained the same and the patterns look alike at quick glance, no two a/c patterns were the same. Check your references carefully for the a/c you are modeling!!!

If you like to paint your model in silver, its recommend to use Model Master Metalizer - Stylus Steel or Humbrol Polished Steel, as basic.



FS - 33531



FS - 34227



FS - 30219



FS - 35622



FS - 36320



FS - 36375

Decals & Conversion kits

Decals in 1/48 scale

AeroMaster - Ref. 48-437.

Decals in 1/72 scale.

Carpena - Ref. 72.08a.

Super Scale - Ref. 72-105

Recommended Kits

1/72 scale - High Planes

1/48 scale - Esci/Ertl, Fujimi, Academy



Academys new 1/48 scale Mirage IIICJ box.

You can buy this items and more from our internet site - <http://www.fly.to/israelaf>





Typical Mirage IIICJ armament.

